

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims

1. (Currently Amended) An external antenna device for a portable telecommunication apparatus, said external antenna device comprising:

a first antenna adapted for telecommunication in at least a first frequency band and;

a second antenna adapted for short-range supplementary communication in a second frequency band; and

wherein the first and second antennas are arranged on at least one planar portion of a common support element when the external antenna device is in an operational mode, said common support element comprising consisting of a flexible thin dielectric film provided directly in a flexible housing.

2. (Previously Presented) The antenna device as in claim 1, wherein the first and second antennas are formed as printed traces of conductive material on said flexible dielectric film.

3. (Canceled)

4. (Previously Presented) The antenna device as in claim 1, wherein the first antenna comprises a first feeding point and the second antenna comprises a second feeding point, the first and second feeding points being electrically isolated from each other.

5. (Previously Presented) The antenna device as in claim 4, wherein the second antenna comprises a grounding point positioned in proximity with the second feeding point.

6. (Previously Presented) The antenna device as in claim 5, wherein the second antenna is a planar inverted F-type antenna (PIFA).

7. (Previously Presented) The antenna device as in claim 1, wherein the first antenna is a monopole antenna.

8. (Previously Presented) The antenna device as in claim 6, wherein the second antenna is adapted for communication in a 2.4 GHz frequency band.

9. (Previously Presented) The antenna device as in claim 7, wherein the first antenna is a multi-band antenna.

10. (Previously Presented) The antenna device as in claim 9, wherein the first antenna is adapted for communication in a 900 MHz frequency band and at least one of an 1800 MHz frequency band and a 1900 MHz frequency band.

11. (Currently Amended) A portable telecommunication apparatus, said portable telecommunication apparatus including an external antenna device comprising:

a first antenna adapted for telecommunication in at least a first frequency band; and

a second antenna adapted for short-range supplementary communication in a second frequency band; and

wherein the first and second antennas are arranged on at least one planar portion of a common support element when the external antenna device is in an operational mode, said common support element comprising consisting of a flexible thin dielectric film provided directly in a flexible housing.

12. (Previously Presented) The portable telecommunication apparatus as in claim 11, further comprising a printed circuit board with radio circuitry mounted thereon,

and an antenna connector adapted to provide electric contact between the first and second antennas and said radio circuitry.

13. (Previously Presented) The portable telecommunication apparatus as in claim 12, wherein the first antenna comprises a first feeding point and the second antenna comprises a second feeding point, the first and second feeding points being electrically isolated from each other; wherein the second antenna comprises a grounding point positioned in proximity with the second feeding point; and wherein the antenna connector includes:

a first resilient contact pin adapted to engage with the first feeding point of the first antenna,

a second resilient contact pin adapted to engage with the second feeding point of the second antenna, and

a third resilient contact pin adapted to engage with the grounding point of the second antenna.

14. (Previously Presented) The portable telecommunication apparatus as in claim 13, wherein the first, second and third resilient contact pins are pogo pins.

15. (Previously Presented) The portable telecommunication apparatus as in claim 13, wherein the first, second and third resilient contact pins are spring ledges.

16. (Previously Presented) The portable telecommunication apparatus as in any of claims 11-15, wherein the antenna device is contained in a plastic or rubber antenna housing, which is attached to an upper rear portion of the portable telecommunication apparatus.

17. (Previously Presented) The portable telecommunication apparatus as in claim 11, wherein the apparatus comprises a radio telephone.

18. (Previously Presented) The portable telecommunication apparatus as in claim 17, wherein the apparatus is adapted for use in a GSM, UMTS or D-AMPS mobile telecommunications network.

19. (Previously Presented) The portable telecommunication apparatus as in claim 17, wherein said radio telephone comprises a mobile telephone.

20. (Currently Amended) A portable telecommunication apparatus, said portable telecommunication apparatus including an antenna device comprising:

a first antenna adapted for telecommunication in at least a first frequency band; and

a second antenna adapted for short-range supplementary communication in a second frequency band, ~~characterized in that;~~

the first and second antennas [[are]] being formed on a common support element consisting of a flexible thin dielectric film provided directly in a flexible housing;

wherein said apparatus further comprises a printed circuit board with radio circuitry mounted thereon, and an antenna connector adapted to provide electric contact between the first and second antennas and said radio circuitry, the first antenna comprising a first feeding point and the second antenna comprising a second feeding point, the first and second feeding points being electrically isolated from each other, and the second antenna comprising a grounding point positioned in proximity with the second feeding point;

wherein the antenna connector includes a first resilient contact pin adapted to engage with the first feeding point of the first antenna, a second resilient contact pin adapted to engage with the second feeding point of the second antenna, and a third resilient contact pin adapted to engage with the grounding point of the second antenna; and

wherein the common support element has formed therein a recess located between the first feeding point and the second feeding point.

21. (Previously Presented) The portable telecommunication apparatus as in claim 20, wherein the first, second and third resilient contact pins are pogo pins.

22. (Previously Presented) The portable telecommunication apparatus as in claim 20, wherein the first, second and third resilient contact pins are spring ledges.

23. (Previously Presented) The portable telecommunication apparatus as in ~~any of claims 20-22~~ claim 20, where the antenna device is contained in a plastic or rubber antenna housing, which is attached to an upper rear portion of the portable telecommunication apparatus.

24. (Previously Presented) The antenna device according to claim 1, wherein the flexible housing is made of rubber or plastic.

25. (Currently Amended) An external antenna device for a portable telecommunication apparatus, said external antenna device comprising:

a first antenna adapted for telecommunication in at least a first frequency band and;

a second antenna adapted for short-range supplementary communication in a second frequency band; and

wherein the first antenna is arranged on a first substantially planar portion of the common support element, and the second antenna is arranged on a second substantially planar portion of the common support element, said common support element comprising consisting of a flexible thin dielectric film provided directly in a flexible housing.

26. (Previously Presented) The external antenna device as in claim 25, wherein the first substantially planar portion of the common support element and the second substantially planar portion of the common support element are arranged at an angle with respect to each other.

27. (Previously Presented) The external antenna device as in claim 25, wherein the first and second antennas are formed as printed traces of conductive material on said flexible dielectric film.

28. (Previously Presented) The external antenna device as in claim 25, wherein the first antenna comprises a first feeding point and the second antenna comprises a second feeding point, the first and second feeding points being electrically isolated from each other.

29. (Previously Presented) The external antenna device as in claim 28, wherein the second antenna comprises a grounding point positioned in proximity with the second feeding point.

30. (Previously Presented) The external antenna device as in claim 25, wherein the second antenna is a planar inverted F-type antenna (PIFA).

31. (Previously Presented) The external antenna device as in claim 25, wherein the first antenna is a monopole antenna.

32. (Previously Presented) The external antenna device as in claim 25, wherein the second antenna is adapted for communication in a 2.4 GHz frequency band.

33. (Previously Presented) The external antenna device as in claim 25, wherein the first antenna is a multi-band antenna.

34. (Previously Presented) The external antenna device as in claim 25, wherein the first antenna is adapted for communication in a 900 MHz frequency band and at least one of an 1800 MHz frequency band and a 1900 MHz frequency band.

35. (Previously Presented) The external antenna device of claim 1, wherein a thickness of the flexible dielectric film is in the range of 70 μm to 400 μm .

36. (Previously Presented) The portable telecommunications apparatus of claim 11, wherein a thickness of the flexible dielectric film is in the range of 70 μm to 400 μm .

37. (Previously Presented) The external antenna device of claim 25, wherein a thickness of the flexible dielectric film is in the range of 70 μm to 400 μm .

38. (New) The portable telecommunication apparatus as in claim 20, wherein the first feeding point is electrically isolated from the second feeding point in that the first feeding point is located on a first side of the common support element and the second feeding point is located on a second side of the common support element opposite the first side of the common support element.